

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: TROUT POND	Lake Area (ha): 5.62
Town: DORCHESTER	Maximum depth (m): 2.1
County: Grafton	Mean depth (m): 1.1
River Basin: Merrimack	Volume (m ³): 59000
Latitude: 43°48'07" N	Relative depth: 0.8
Longitude: 71°59'39" W	Shore configuration: 1.01
Elevation (ft): 1635	Areal water load (m/yr): 11.34
Shore length (m): 850	Flushing rate (yr ⁻¹): 10.80
Watershed area (ha): 90.1	P retention coeff.: 0.54
% watershed ponded: 0.0	Lake type: natural

BIOLOGICAL:

11 February 1997

19 August 1996

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 75%	RHIZOSOLENIA 45%
	#2	(ALL ALGAE SPARSE)	CHRYSOSPHAERELLA 20%
	#3		DINOBRYON 17%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			9.44
DOM. ZOOPLANKTON (% TOTAL)	#1	ROTIFER SPP 71%	KERATELLA 88%
	#2		NAUPLIUS LARVA 5%
	#3		POLYARTHRA 5%
ROTIFERS/LITER		94	6282
MICROCRUSTACEA/LITER		38	375
ZOOPLANKTON ABUNDANCE (#/L)		132	6697
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			1.7
BOTTOM DISSOLVED OXYGEN (mg/L)		7.3	7.8
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): None

CHEMICAL:

Lake: TROUT POND

Town: DORCHESTER

	11 February 1997		19 August 1996		
DEPTH (m)	1.0		1.0		1.8
pH (units)	5.5		6.4		6.0
A.N.C. (Alkalinity)	2.9		2.4		2.3
NITRATE NITROGEN	0.14		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.21		0.39		0.44
TOTAL PHOSPHORUS	0.007		0.013		0.016
CONDUCTIVITY (μ mhos/cm)	23.6		17.4		17.9
APPARENT COLOR (cpu)	24		45		45
MAGNESIUM			0.26		
CALCIUM			1.7		
SODIUM			< 1.0		
POTASSIUM			< 0.40		
CHLORIDE	< 2		< 2		< 2
SULFATE	4		3		3
TN : TP	50		30		28
CALCITE SATURATION INDEX			4.3		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

D.O. S.D. PLANT CHL TOTAL CLASS

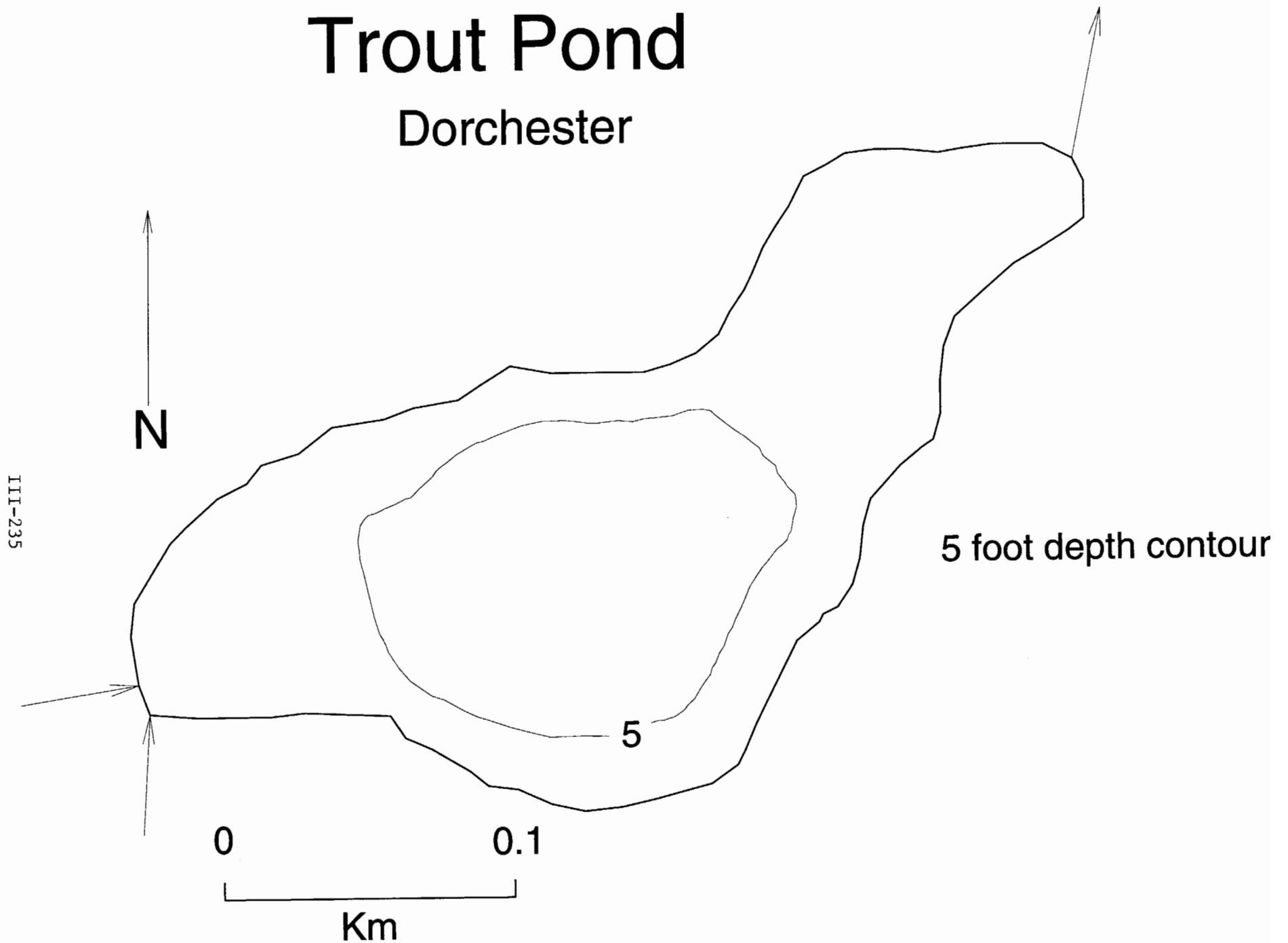
**	4	2	2	8	Meso.
----	---	---	---	---	-------

COMMENTS:

1. This is a remote pond located along a 4-wheel drive jeep trail that was sampled jointly with the NH Fish and Game Department.
2. This is a small, shallow, mildly acidic, lightly tea-colored mesotrophic pond. Macrophytes and algae were common, and water clarity was less than six feet. Secondary productivity was very prolific with high numbers of the rotifer *Keratella*. Rotifer (6282 cells/L) and total zooplankton (6697 cells/L) counts were the highest of any lake in our database.

Trout Pond

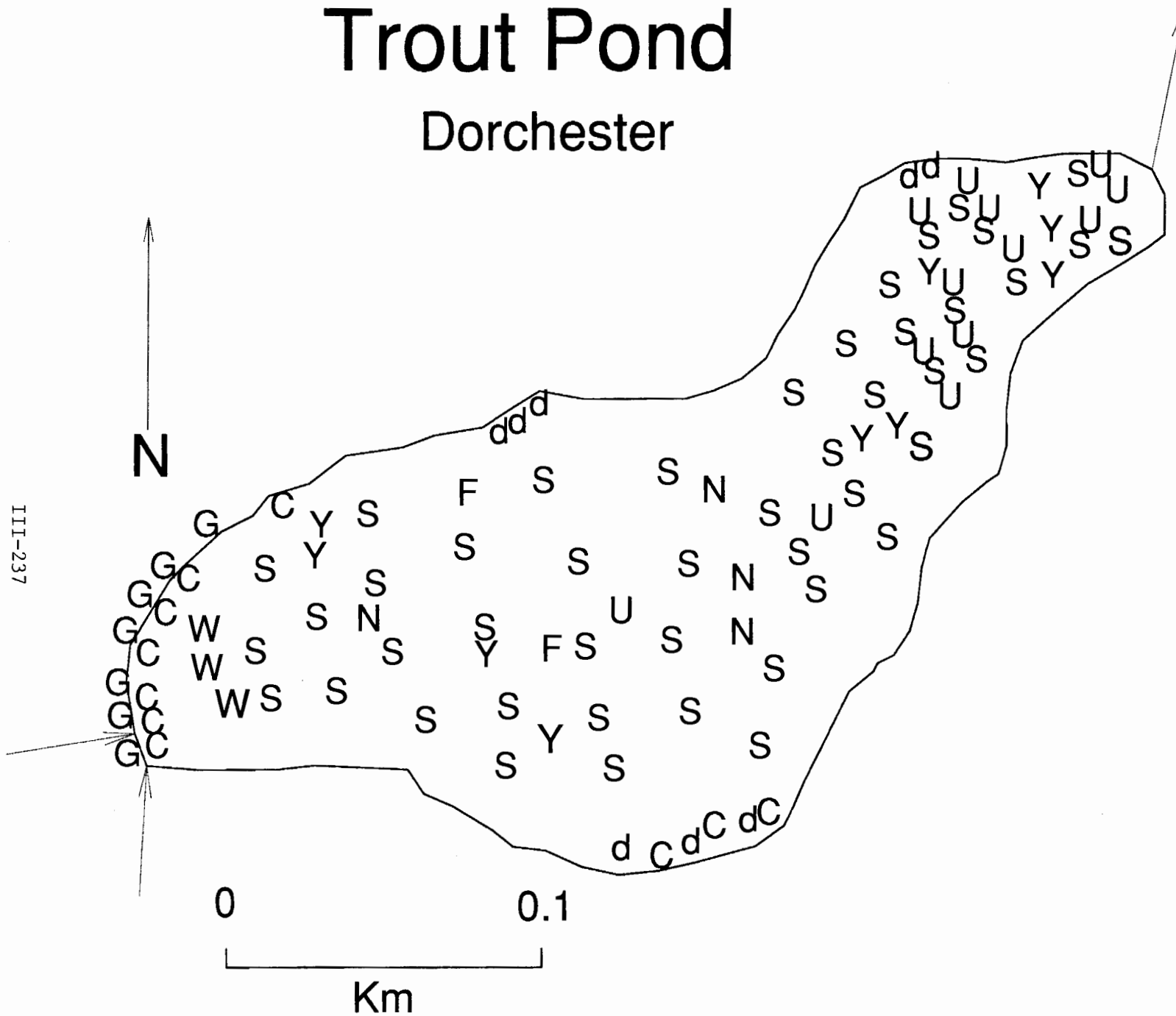
Dorchester



[illegible]

Trout Pond

Dorchester



[illegible]